

REMARKS

Claims 1, 2, 4, 6 and 8 are now in the application.

Claims 1, 2, 4, 6 and 8 were rejected under 35 U.S.C. § 103(a) as being over U.S. Patent 6,911,254 to Fisher et al. in view of U.S. Patent 6,579,608 to Kondo and further in view of US Patent Application Publication 2006/0110593 to Fukatani et al. and US Patent 5,792,559 to Heithoff et al. The cited references do not render obvious the present invention.

The interlayer for laminated glass of the present application has, inter alia, the two layers: (i) a heat ray shielding resin layer containing a heat ray shielding fine particle, and (ii) a color tone compensation resin layer toned to have a color complementary to the color tone of the heat ray shielding fine particle.

If a coloring agent which has a color complementary to the color tone of the heat ray shielding fine particle is added to the above heat ray shielding resin layer, an oxidation reduction reaction occurs between the coloring agent added and the heat ray shielding fine particles, and therefore the heat ray shielding resin layer is colored to have a yellow tone, and the transparency of the laminated glass is impaired. Therefore, the heat ray shielding fine particles and the coloring agent which has a color complementary to the color tone of the heat ray shielding fine particle cannot be used together in the same layer.

It is important that a heat ray shielding resin layer containing the heat ray shielding fine particles and a color tone compensation resin layer toned to have a color complementary to the color tone of this heat ray shielding fine particle must be separated. Please see paragraphs [0030] and [0031] of the specification.

The ultraviolet absorbing resin layer is also important. The heat ray shielding fine particles cause the oxidation reaction accompanied by coloring due to ultraviolet rays. The ultraviolet absorbing resin layer represses this reaction and maintains the interlayer for laminated glass having an excellent transparent property and a natural color. Please see paragraph [0036] of the specification.

Fisher et al. suggest a multilayer interlayer comprising a polyvinyl butyral layer containing heat ray shielding particles sandwiched between encapsulation layers. However, Fisher et al. never discloses that the heat ray shielding fine particles and the coloring agent which has a color complementary to the color tone of this heat ray shielding fine particle must be separated in different layers. Please see column 4, line 24 to column 5, line 2 of Fisher et al. A typical formulation to achieve a gray color is described. However, therein, LaB_6 and pigments are contained in the same layer. With this formulation, an oxidation-reduction reaction easily occurs between LaB_6 and pigments, resulting in a yellow tone.

Furthermore, Fisher et al. fail to disclose the addition of an ultraviolet absorbing layer. Kondo suggests such a layer. However, the effect of the present invention of repressing the oxidation reaction of the heat ray shielding fine particles can not be predicted and is not apparent from Kondo.

Fukatani et al. is not prior art to the present application and therefore can not be used to reject the claims. US Patent Application Publication 2006/0110593 was published on May 25, 2006, which is after the filing of the present application. Therefore, attached is a "Statement of Common Ownership" that the inventions of US Patent Application Publication 2006/0110593 and the present application were commonly owned by Sekisui Chemical Co., Ltd. when the present invention was made. Accordingly, in view of the common ownership, the rejection under 35 USC 103(a) is not tenable pursuant to 35 USC 103(c).

In addition, PCT application PCT/JP2004/018663, the International stage application of US Patent Application Publication 2006/0110593, was filed on December 14, 2004 and published in Japanese on July 21, 2005, less than one year prior to the September 1, 2005 filing date of the PCT application for the present application. However, the priority date for the present application is September 2, 2004, which is prior to the publication date of PCT/JP2004/018663. Accordingly, enclosed herewith is a verified English translation of applicant's priority application, JP-2004-255931. Since applicant is entitled to an effective filing date that predates the publication date of PCT/JP2004/018663, such also cannot be used to reject claims in this application.

Heithoff et al. fail to overcome the above discussed deficiencies of the above references with respect to rendering unpatentable the present invention. Heithoff et al. suggest a composite glass laminate transparency comprising a multi-layer interlayer comprising different tinted PVB layers wherein each successive tinted layer has an increasing amount of colorant to provide a color which compliments that of a glass substrate. However in Heithoff et al., a heat ray shielding fine particle and the coloring agent are added in same layer. Heithoff et al. fails to disclose that the heat ray shielding resin layer and the color tone compensation resin layer must be separated. As discussed above and disclosed in paragraphs [0030] and [0031] of the specification, it is important according to the present invention that that the heat ray shielding resin layer and the color tone compensation resin layer be separated.

In view of the above, consideration and allowance are respectfully solicited.

In the event the Examiner believes an interview might serve in any way to advance the prosecution of this application, the undersigned is available at the telephone number noted below.

The Office is authorized to charge any necessary fees to Deposit Account No. 22-0185, under Order No. 21581-00462-US from which the undersigned is authorized to draw.

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Respectfully submitted,

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